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PROCUREMENT SECTION
Alphabetical Serial File

Spring Semester Evening and Saturday Classes

GRADUATE SCHOOL • U. S. DEPARTMENT OF AGRICULTURE

Independence Avenue, between 12th and 14th Streets, Southwest, Washington, D. C. 20250 • 447-6337

Register by mail now until December 29.

Register in person January 8-13.

- Courses for High School and College Graduates
- Training for Government Employees and Others



A CENTER FOR CONTINUING EDUCATION

**REGISTER BY MAIL UNTIL DECEMBER 29
REGISTER IN PERSON JANUARY 8-13**

General Information

Registration Week: January 8-13, in the Patio (first floor) of the Administration Building, U. S. Department of Agriculture, 14th Street and Independence Avenue, S.W., Washington, D. C. 20250.

Monday-Friday (January 8-12): 11:00 a.m.-6:30 p.m.

Saturday (January 13 only): 9:00 a.m.-4:00 p.m.

Procedures: Registration may be made in person between January 8 and 13 or by mail before December 29. For registration by mail, use the registration form inside the back cover. Include check or purchase order with registration form, and mail to: Business Office, Graduate School, U. S. Department of Agriculture, 14th Street and Independence Avenue, S.W., Washington, D. C. 20250. Transcripts of previous educational records are not required, but graduation from high school, or the equivalent, is the general prerequisite for all courses. The more advanced courses have specific prerequisites, which are listed in the course descriptions contained in the Catalog.

To Agencies and Students attending under Government Employees Training Act (Public Law 85-507): The Agency Authorization Form must be accompanied by our registration form. Both must be submitted before registration is completed. Students should make arrangements with training offices well in advance of registration week.

Training Officers: You may contract with us for evening and Saturday classes at your location as follows:

For a 3 credit course: up to 20 students for \$1620

21-30 students for \$2430

For a 2 credit course: up to 20 students for \$1180

21-30 students for \$1770

Registration will be conducted on the first night of class at your location. At least two weeks notice is requested. Contact Mr. Charles Vinick—447-6337. Fees for classes during normal working hours that require special handling are somewhat higher. Contact Mr. Dee Henderson—447-3247.

Social Security Number: Bring to registration. This is important!

Academic Credit: Any student wishing to receive credit elsewhere for Graduate School courses should consult in advance with the college or university in which he plans to take a degree.

Transcripts: Transcripts are issued upon written request. There is a charge of \$2.00 per copy. NO TRANSCRIPTS ARE ISSUED DURING REGISTRATION.

Counseling: Members of the Graduate School staff are on hand for counseling before and during the registration period.

Fees: The charge for tuition is in general \$22 for each credit hour, payable at the time of registration. However, arrangements may be made to pay one-half of the tuition at that time. The second payment is due by February 23. IF PAYMENT IS MADE IN FULL AT THE TIME OF REGISTRATION, THERE IS A \$2.00 DISCOUNT FOR EACH CREDIT HOUR. HOWEVER, WHEN BILLING IS NECESSARY, THE DISCOUNT IS NOT APPLICABLE.

Late Registrations: Late registrations will be accepted Monday, January 15 through Friday, January 19, with permission of the Registrar's Office, but only if space permits. There is a \$2.00 charge per course for late registrations.

Course Transfers: Until February 3, students may transfer from one course to another without extra charge, but only if space permits. After that date, there is a transfer fee of \$1.00 per course. Transfers may be made only with the permission of the Registrar's Office.

Veterans: A veteran eligible for training under the Veterans Readjustment Benefits Act of 1966 (Public Law 89-358) should consult the Registrar's Office well in advance of registration so that approval can be obtained from the Veterans Administration. In order to receive benefits, you must notify the Registrar's Office each semester you enroll and whenever you change courses.

Class Schedule: Classes begin Monday, January 22, through Saturday, January 27, and end the week of May 5.

BOOKSTORE INFORMATION: 447-6070

Textbooks: Textbooks can be purchased at the Graduate School Bookstore, Room 1404, South Agriculture Building. The Bookstore hours are, as follows:

January 8-January 19

Monday-Friday: 11:00 a.m.-6:30 p.m.

Saturday (January 13 only): 9:00 a.m.-4:00 p.m.

January 22-February 2

Monday-Friday: 11:00 a.m.-6:30 p.m.

Saturday (January 27 only) 8:30 a.m.-2:00 p.m.

February 5-February 16

Monday-Friday: 11:00 a.m.-6:15 p.m.

Beginning February 20 through the end of the semester

Monday-Friday: 11:00 a.m.-1:00 p.m. and 4:30 p.m.-6:15 p.m.

Withdrawals and Refunds: When a student withdraws from a course, a refund is granted in accordance with the following schedule:

Through February 3: tuition less \$5.00 for each course.

February 5-17: 50 per cent of total tuition only. No other fees refunded.

Laboratory fees are refunded only during the first week of classes. Notice of withdrawal must be made in writing to the Registrar's Office. Forms are available for that purpose. Refunds are computed as of the date that notice of withdrawal is received in the Registrar's Office. No refunds will be granted for any reason after February 17.

Credit-Audit Changes: The deadline is March 3. Notice must be made in writing to the Registrar's Office.

Parking Space (USDA)—Cafeteria: Space for parking is available after 5:30 p.m. for students and faculty in the parking court on the west side of the Administration Building. There is also space on the Mall, north of the Administration Building. Sandwiches are available in Room 6857, South Building, adjacent to the fourth wing cafeteria and in the basement in the Administration Building.

Office Hours: The Registrar's Office, Room 1031, South Building, U. S. Department of Agriculture, 14th Street and Independence Avenue, S.W., Washington, D. C. 20250, is open from 8:45 a.m. to 6:15 p.m., Monday through Friday.

Telephone 447-6337

SCHEDULE OF CLASSES

Register by Mail before December 29

Register in Person January 8-13

Classes begin January 22-27

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
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BIOLOGICAL SCIENCES

E1249	Noise Pollution: Its Effects on Man	(3)	Suter	Mon	6:10-8:40	\$66 and \$1 materials fee p. 32		1
E1470	Ecology for Ecomangers	(2)	Bandurski and Hofman	Tues	6:10-8	\$44 and \$1 materials fee p. 32		26
E1560	Fundamentals of Medical Microbiology	(3)	Fusillo	Thurs	6:10-8:40	\$66 p. 33		50
E1524	General Mycology	(3)	Mislivec	Wed	6:10-8:40	\$66 p. 33		3
E1426	Pathology of Individual Organs and Systems	(3)	Burns	Tues	6:10-8:40	\$66 p. 34		50
E1420	Plant Physiology	(2)	Woodstock	Tues	4:45-6:35	\$44 and \$1 materials fee p. 34		40
E1580	Biochemistry and Physiology of Fruits	(2)	Faust	Wed	4:45-6:35	\$44 p. 35		40
E5666B	Biological Oceanography (Second Half)	(2)	Houbrick	Wed	6:10-8	\$44 p. 115		7

Natural History Field Studies

(Register January 8-13 for all courses)

E1132	Introduction to the Outdoors	(1)	Lavell and Beck	Mon	6:10-8	\$22 p. 36 (8 weeks beginning March 19) (Lectures March 19; April 2, 16, 30. Field trips March 24; April 7, 21; May 5.)		26
E1142	Plant Identification I	(1)	Donnald and Johnson	Wed	6:10-8	\$22 and \$2 laboratory fee p. 36 (8 weeks beginning January 24) (Lectures Jan. 24, 31; Feb. 7, 14, 28; March 7, 14. Field trip Feb. 24.)		44
E1145	Plant Identification II	(1)	Donnald and Johnson	Wed	6:10-8	\$22 and \$2 laboratory fee p. 36 (8 weeks beginning March 28.) (Lectures March 28; April 4, 11, 18, 25; May 9. Field trips April 28; May 5.)		44
E1130	Physical Environment I: Geology	(1)	Davies	Wed	6:10-8	\$22 p. 36 (8 weeks beginning March 21.) (Lectures March 21; April 4, 18; May 2. Field trips March 24; April 7, 21.)		26
E1133	Introduction to Ecology	(1)	Gibson	Mon	6:10-8	\$22 p. 37 (8 weeks beginning Jan. 22.)		26
E1125	Physical Environment III: Soils and Landscape	(1)	Simpson	Mon	6:10-8	\$22 p. 37 (8 weeks beginning March 26.) (Lectures March 26; April 9, 23; May 7. Field trips March 31; April 14, 28.)		26
E1139	Wildlife Populations	(1)	Crouse	Thurs	6:10-8	\$22 p. 37 (8 weeks beginning January 25.)		26
E1141	Biotic Communities II: Coniferous Forests	(1)	Osborn	Tues	6:10-8	\$22 p. 38 (8 weeks beginning March 27.) (Lectures March 27; April 10, 24; May 8. Field trips March 31; April 14, 28.)		26
E1140	Land Use Principles	(1)	Osborn and Associates	Wed	6:10-8	\$22 p. 38 (8 weeks beginning January 24.) (Lectures Jan. 24, 31; Feb. 7, 14, 21; March 7. Field trips Feb. 3; March 17.)		26
E1152	Conservation in Action	(1)	Mergen and Wagner	Tues	6:10-8	\$22 p. 38 (8 weeks beginning March 20.) (Lectures March 20; April 3, 17; May 1. Field trips March 24; April 7, 21.)		1
E1143	Insect Life	(1)	Harrison	Tues	6:10-8	\$22 p. 39 (8 weeks beginning January 23.)		26
E1144	Rocks and Fossils	(1)	Withington	Wed	6:10-8	\$22 p. 39 (8 weeks beginning March 28.) (Lectures March 28; April 11, 25; May 9. Field trips March 31; April 14, 28.)		26

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
*E2165	Literature of the Potomac Valley (1)	Wesely	Mon 6:10-8	\$22 and \$2 materials fee	.1			
	p. 51 (8 weeks beginning January 22)							
E1136	Nature Teaching—Workshop (1)	Shuke	Thurs 6:10-8 (first meeting only)	26 and 13				
	and Sat 10-12 \$22 p. 39 (8 weekends beginning March 22.)							
	(Lectures March 22, 31; April 14, 28; May 12.)							
*E1161	Current Conservation Philosophy (1)	Briggs	Thurs 6:10-8 (first meeting only)	26 and 13				
	and Sat 10-12 \$22 p. 40 (8 weeks beginning January 25.)							
	(Lectures Jan. 25; Feb. 3, 10, 17, 24; March 3, 10.)							

COMMUNICATION AND LANGUAGE ARTS

Communications Media and Skills

E2226	Official Writing (3)	McClarren and Schaal	Sat 9-11:30	\$66 p. 42	1
E2235	Fiction Writing—Workshop (2)	Field	Thurs 6:10-8	\$44 p. 42	10
E2281	Advanced Feature Writing (2)	Dolan	Wed 6:30-8:20	\$44 p. 42	14

Audio-Visual Communication

E2120	Audio-Visual Communication: Principles and Techniques (3)	Fox	Mon 6:10-8:40	\$66 and \$25 laboratory fee p. 43	35
E2122	Video Tape Production (3)	Ibbott and Onder	Sat 9-11:30	\$66 and \$25 laboratory fee p. 43	35
E2123	Media Administration (3)	Fox	Wed 6:10-8:40	\$66 p. 43	35
E2124	Maintenance of Audio-Visual Equipment: Physics (3)	Peck	Wed 6:10-8:40	\$66 and \$25 laboratory fee p. 44	35
E2276	Documentary and Instructional Film and Television (2)	Harris	Thurs 6:10-8	\$44 p. 44	1

Graphic Arts

E2188B	Graphic Arts in Federal Government (Second Half) (2)	Southree and Taylor	Wed 6:10-8	\$44 p. 44	1
E2179	Environmental Design (2)	Granahan	Wed 6:10-8	\$44 p. 44	1
E2186	Creative Illustration (2)	Auld	Tues 6:10-8	\$44 p. 44	14
E2311	Art, Layout, and Design for Reproduction (2)	Robinson and Taylor	Tues 6:10-8	\$44 p. 45	2
E2185	Layout in Visual Communication (2)	Jessup	Mon 6:10-8	\$44 p. 45	5
E2180	Creative Design (2)	Baka	Tues 6:10-8	\$44 p. 45	1
E2182	Exhibit Design and Fabrication (2)	Schleyer	Tues 6:10-8	\$44 p. 45	1
E2181	Production and Management of Graphics (2)	Hopewell	Mon 6:10-8	\$44 p. 45	4
E2237	Printing, Layout, and Design (2)	Murow and Associates	Tues 6:10-8	\$44 p. 47	1

Editing

E2225	Principles of Editing and Their Application (3)	\$66 p. 46			
	Section 01 Carroll	Wed 6:10-8:40			1
	Section 02 Smith	Sat 9-1 (10 weeks)			1
E2239	Intermediate Editing (3)	\$66 p. 46			
	Section 01 Sharp	Thurs 6:10-8:40			1
	Section 02 Tannenbaum	Sat 9-1 (10 weeks)			1
E2360	Advanced Practice in Editing (3)	Dalton	Thurs 6:10-8:40	\$66 and \$1 materials fee p. 46	1
E2220	Indexing (2)	Kelly	Sat 9-12 (10 weeks)	\$44 p. 47	1
E2237	Printing, Layout, and Design (2)	Murow and Associates	\$44 p. 47		1
*E2424	Seminar in Editing (3)	Fitton	Wed 6:10-8:40	\$66	1
	(Review and analysis of the editorial problems that arise in the planning, preparation, production, printing, and management of publications. Special emphasis is placed on the individual student through selective readings, projects, discussions, research, and on-the-job problems. Open to students who have completed all other courses required for the Certificate of Accomplishment in Editorial Practices and to working editors who have the consent of the instructor.)				

English—Grammar and Writing

E2095	Improving Reading Ability (non-credit)	Henderson	Mon and Wed 6:10-8	(8 weeks) \$44 p. 47	35
E2029	Spelling and Basic Vocabulary (non-credit)	Neuman	Mon 6:10-8	\$44 p. 47	7
E2112	Practical English Usage (2)	\$44 p. 48			
	Section 01 Holt	Tues 6:10-8			7
	Section 02 Amabile	Thurs 6:10-8			8
E2035	English for Secretaries (non-credit)	Holt	Wed 6:10-8	\$44 p. 48	7
E2038	English for Foreigners I (non-credit)	Weeks	Mon 6:10-8	\$44 p. 48	1
E2052	English for Foreigners II (non-credit)	Weeks	Tues 6:10-8	\$44 p. 48	1
E2053	English for Foreigners III (non-credit)	Weeks	Wed 6:10-8	\$44 p. 48	1
E2119	Vocabulary Building (3)	Farrar	Wed 6:10-8:40	\$66 p. 48	1
E2222A	English Composition (First Half) (3)	Reed	Mon 6:10-8:40	\$66 p. 48	30
E2222B	English Composition (Second Half) (3)	Daniels	Mon 6:10-8:40	\$66 p. 48	5
E2250	College Rhetoric (3)	Daniels	Wed 6:10-8:40	\$66 p. 49	5
E4330	Government Letter Writing (2)	Noordhoff	Tues 6:10-8	\$44 and \$2 materials fee p. 101	1

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
Speech								
E2228	Public Speaking for Beginners	(2)	Miller	Wed	6:10-8	\$44 and \$1 materials fee p. 49		11
*E2338	The Dynamics of Persuasion	(2)	Miller	Tues	6:10-8	\$44 and \$2 materials fee p. 49		11
E2246	Voice and Diction	(2)	Baker	Tues	6:10-8	\$44 p. 50		1
Literature								
E2216	American Literature II	(3)	Instructor To Be Announced	Thurs	6:10-8:40	\$66 p. 50		1
*E2165	Literature of the Potomac Valley	(1)	Wesely	Mon	6:10-8	(8 weeks) \$22 and \$2 materials fee p. 51		1
E2330B	Great Books (Second Half) (Reading List A)	(2)	Ruppert	Tues	6:10-8	\$44 p. 51		30
*E2372	Modern American Drama	(2)	Nannes	Wed	6:10-8	\$44 p. 52		5
Foreign Languages								
E2209	Introduction to Linguistics	(2)	Hutchinson	Mon	6:10-8	\$44 p. 53		8
E2219	Principles of Translation	(3)	Duncan	Wed	6:10-8:40	\$66 p. 53 (Note deletion of prerequisite: Undergraduate major or minor in French not required. Ability to write good expository English.)		7
French								
E2253A	Elementary French (First Half)	(3)	Bargin	Wed	6:10-8:40	\$66 p. 54		11
E2253B	Elementary French (Second Half)	(3)	Bargin	Tues	6:10-8:40	\$66 p. 54		11
E2254B	Intermediate French (Second Half)	(3)	Bargin	Mon	6:10-8:40	\$66 p. 54		11
E2068	Reading French (non-credit)	de Constant	Tues	6:10-8:40	\$66 p. 54			1
E2087	Basic Conversational French (non-credit)	Lawton	Mon	6:10-8:40	\$66 p. 54			1
E2258	Advanced French Reading and Conversation	(3)	Bargin	Thurs	6:10-8:40	\$66 p. 55		11
German								
E2259B	Elementary German (Second Half)	(3)	Hoffmann	Thurs	6:10-8:40	\$66 p. 55		1
E2262	Advanced German	(3)	Rose	Sat	9-1	(10 weeks) \$66 p. 55		1
E2088	Basic Conversational German I (non-credit)	von Lutichau	Tues	6:10-8:40	\$66 p. 55			11
E2096	Basic Conversational German II (non-credit)	von Lutichau	Thurs	6:10-8:40	\$66 p. 56			11
E2196	Scientific German I	(3)	Neil	Mon	6:10-8:40	\$66 p. 56		1
E2197	Scientific German II	(3)	Neil	Thurs	6:10-8:40	\$66 p. 56		1
Italian								
E2270B	Elementary Italian (Second Half)	(3)	Bauer	Tues	6:10-8:40	\$66 p. 56		8
Portuguese								
E2290B	Elementary Portuguese (Second Half)	(3)	Luxardo	Wed	6:10-8:40	\$66 p. 56		1
Russian								
E2295A	Elementary Russian (First Half)	(3)	Gerich	Tues	6:10-8:40	\$66 p. 57		1
E2295B	Elementary Russian (Second Half)	(3)	Yansen	Wed	6:10-8:40	\$66 p. 57		11
E2296B	Intermediate Russian (Second Half)	(3)	Gerich	Thurs	6:10-8:40	\$66 p. 57		1
E2292	Scientific Russian I	(3)	Boldyreff	Mon	6:10-8:40	\$66 p. 57		1
E2294	Scientific Russian II	(3)	Boldyreff	Wed	6:10-8:40	\$66 p. 58		1
Spanish								
E2300A	Elementary Spanish (First Half)	(3)	Lasaga	Tues	6:10-8:40	\$66 p. 58		1
E2300B	Elementary Spanish (Second Half)	(3)	Otero	Mon	6:10-8:40	\$66 p. 58		1
E2301B	Intermediate Spanish (Second Half)	Brouwer	Thurs	6:10-8:40	\$66 p. 58			30
E2302B	Advanced Spanish Conversation and Composition	(Second Half) (2)	Lasaga	Wed	6:10-8	\$44 p. 58		1
E2083	Basic Conversational Spanish I (non-credit)	Otero	Tues	6:10-8	\$44 p. 58			1
E2084	Basic Conversational Spanish II (non-credit)	Otero	Thurs	6:10-8	\$44 p. 58			1
Library Technician Program								
E2125	Introductory Course for Library Technicians	(2)	\$44 p. 59					
	Section 01 Moran	Mon	6:10-8					33
	Section 02 Sherrod	Sat	9-12	(10 weeks)				1
E2135	Introduction to Cataloging and Classification	(2)	Instructor To Be Announced					1
	Sat 9-12	(10 weeks)	\$44 p. 59					
E2139	Cataloging and Classification II	(2)	\$44 p. 59					
	Section 01 Judy	Mon	6:10-8					1
	Section 02 Judy	Thurs	6:10-8					1

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
E2137	Basic Reference Service and Reference Tools	(2)	Birch	Wed	6:10-8	\$44	p. 59	1
E2136	Principles of Library Organization	(2)	Larkin	Wed	6:30-8:20	\$44	p. 59	1
E2145	Law Librarianship	(2)	Braucher	Thurs	6:10-8	\$44	p. 60	1
E2160	Library Technician Seminar	(3)	Sherrod	Thurs	6:10-8:40	\$66	p. 60	1

COMPUTER SCIENCES

E9105	Basic Concepts of Data Processing	(3)	\$66	p. 61				
	Section 01 Suter	Mon	6:10-8:40					1
	Section 02 Willey	Tues	6:10-8:40					33
	Section 03 Alexander	Wed	6:10-8:40					8
	Section 04 Nicholson	Sat	9-11:30					1
E9106	Information Storage and Retrieval by Computer	(3)	\$66	p. 61				
	Section 01 Henke and Miller	Tues	6:10-8:40					7
	Section 02 Scott	Wed	4:45-7:15					37
E9322	O. S. Operators Training System 360/370	(3)	Borough	Thurs	6:10-8:40			1
E9559B	\$66 and \$10 laboratory fee p. 61							
	Electronic Data Processing—General (Second Half)	(3)	Pinon					1
	Fri 6:10-8:40 \$66 p. 62							
E9595	ANS COBOL Programming—Fundamentals	(3)	\$66 and \$1 materials fee	p. 62				
	Section 01 Scott	Mon	4:45-7:15					37
	Section 02 Droz	Wed	6:10-8:40					7
	Section 03 Quinlan	Sat	9-1 (10 weeks)					11
E9345	Computer Programming: Overview	(3)	Giammo	Wed	6:10-8:40	\$66	p. 62	6
E9563	Data Processing on Large-Scale Electronic Computers	(3)	Boo	Wed	6:10-8:40			7
	\$66 p. 63							
E9562	ADP System—Analysis, Design, Acquisition, and Operation	(3)	Combs					7
	Mon 6:10-8:40 \$66 p. 63							
*E9425	Complex File Structures	(3)	Instructor To Be Announced	Thurs	6:10-8:40	\$66		42
	(Character of data structures and storage structures from both the programmer's and the analyst's viewpoint.)							
E9605	ADP Budget and Financial Systems	(3)	Ferber	Tues	6:10-8:40	\$66	p. 63	6
E9638	Workshop in Teleprocessing	(3)	Prescott	Sat	9-1 (10 weeks)	\$66	p. 64	1
E9747	ADP Installation Management	(3)	Lini	Sat	9-1 (10 weeks)	\$66	p. 64	1
E9592	IBM System 360/370 Introduction	(3)	\$66	p. 64				
	Section 01 Beck	Mon	6:10-8:40					6
	Section 02 Cohen	Sat	9-11:30					1
E9607	IBM 360/370 Assembly Language Coding	(3)	\$66	p. 65				
	Section 01 Johnson	Wed	6:10-8:40					6
	Section 02 Strite	Thurs	6:10-8:40					47
E9615	IBM System 360/370 ANS COBOL (Actual Practice)	(3)	Standifer	Sat	9-1 (10 weeks)	\$66 and \$35 laboratory fee	p. 65	1
E9611	IBM System 360/370 FORTRAN	(3)	Mattman	Wed	6:10-8:40	\$66	p. 65	9
E9612	IBM System 360/370 PL/1	(3)	Roberts	Wed	6:10-8:40	\$66	p. 66	1
E9613	IBM System 360/370 O. S. Language Interface	(3)	Beck	Wed	6:10-8:40			6
	\$66 p. 66							
E9618	IBM 360/370 O. S. Job Control Language and Core Dump Analysis	(3)	\$66 and \$10 laboratory fee	p. 66				
	Section 01 Impellitteri and Jarrett	Wed	5:45-9:30 (10 weeks)					1
	Section 02 Rindfleisch	Sat	9-1 (10 weeks)					1
E9529	Systems Approach to ANS COBOL	(3)	Carper	Tues	6:10-8:40	\$66	p. 66	1
E9589	FORTRAN Programming for Scientific and Business Computers	(3)	Warnecke					
	Wed 6:10-8:40 \$66 p. 67							
E9475	Simulation and Modelling	(3)	Jobe	Tues	6:10-8:40			1
	\$66 and \$10 laboratory fee p. 67							
E9301	Modern Computer Scheduling Programs	(2)	Pirkle	Mon	6:10-8	\$44	p. 67	8
E9762	Electronic Computer Methods for Statisticians	(3)	Marcus	Thurs	6:10-8:40			6
	\$66 p. 68							
E9737B	Systems Analysis and Design (Second Half)	(3)	Nowotny	Thurs	6:10-8:40			9
	\$66 p. 69							
E9719	ADP Systems Design Workshop	(3)	Elenbaas	Tues	6:10-8:40	\$66	p. 69	5
E8223	Map Projections and Grid Systems	(3)	Basile	Thurs	6:10-8:40			1
	\$66 and \$2 materials fee p. 150							

EXECUTIVE DEVELOPMENT, MANAGEMENT, AND SUPERVISION

Financial Management and Accounting

E4112A	Federal Fiscal Procedure (First Half)	(2)	Finotti	Mon	6:10-8	\$44	p. 99	7
E4112B	Federal Fiscal Procedure (Second Half)	(2)	Robbins	Wed	6:10-8	\$44	p. 99	6
E4116	Federal Budgetary Procedure: Formulation and Presentation	(2)	\$44	p. 99				
	Section 01 Johnson	Tues	6:10-8					7
	Section 02 Hoadley	Wed	6:10-8					7
E4118	Federal Budgetary Procedure: Execution and Fund Control	(2)	Bartolomeo					11
	Mon 6:10-8 \$44 p. 99							
E6635	Federal Budgetary Administration	(2)	Murphy	Thurs	6:10-8	\$44	p. 71	45
E6046	Review for GS-510 Accounting Examination (non-credit)		Marchetti					5
	Mon 6:10-8:40 \$66 p. 71							
E6102	Introductory Accounting	(3)	\$66	p. 72				
	Section 01 Tronolone	Mon	6:10-8:40					6
	Section 02 Uyeda	Thurs	6:10-8:40					4
E6352A	Principles of Accounting (First Half)	(3)	\$66	p. 72				
	Section 01 Hirschhorn	Mon	6:10-9:45					1
	Section 02 Palenski	Tues	6:10-9:45					4
	Section 03 Rosenberg	Wed	6:10-9:45					24
	Section 04 Sitko	Thurs	6:10-9:45					11
E6352B	Principles of Accounting (Second Half)	(3)	\$66	p. 72				
	Section 01 McMillan	Thurs	6:10-9:45					7
	Section 02 O'Brien	Sat	9-12:45					14

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
E6353A	Intermediate Accounting (First Half)	(3)	Tseronis	Mon	6:10-8:40	\$66	p. 72	47
E6353B	Intermediate Accounting (Second Half)	(3)	Lutz	Tues	6:10-8:40	\$66	p. 73	47
E6420B	Advanced Accounting—Theory and Problems (Second Half)	(3)	Sullivan					21
	Tues 6:10-8:40	\$66	p. 73					
E6264A	Federal Government Accounting (First Half)	(2)	Canada	Wed	6:10-8	\$44	p. 73	1
E6264B	Federal Government Accounting (Second Half)	(2)	Canada	Thurs	6:10-8			1
	\$44	p. 73						
*E6494	Managerial Accounting For Non-Accountants (Designed for those who use financial information rather than the accountant who supplies the information. Emphasizes class practice in case studies to illustrate how financial information can be applied to managing and decision making. The course will cover such areas as: Information for planning and controlling budgets; budget process; limitations on use of financial data; internal reports; cost/volume/profit relationship; and decision making.)	(3)	O'Brien	Wed	6:10-8:40	\$66		14
E6276	Public Utility Procedures and Methods	(3)	Lindsay	Tues	6:10-8:40	\$66	p. 73	31
E6642B	Cost Accounting (Second Half)	(3)	Peterson	Mon	6:10-8:40	\$66	p. 74	14
E6510	Analysis and Interpretation of Financial Statements	(2)	Varholý	Thurs	6:10-8			11
	\$44	p. 74						
E6645B	Federal Income Taxes (Second Half)	(3)	Wilson	Tues	6:10-8:40	\$66	and	35
	\$1 materials fee	p. 74						

Legal Administration

E6120	Introduction to Law	(2)	Brewer	Mon 6:10-8	\$44	p. 74	9	
E6422B	Business Law (Second Half)	(2)	Monson	Sat 9-12	(10 weeks)	\$44	p. 75	1
E6426	Legal Elements of Sale, Rental, and Purchase of Property	(2)	Duncan				5	
				6:10-8	\$44	p. 75		
E6425	Legal Aspects of Investigation—Criminal Evidence and Procedure	(2)	Michels				3	
				Thurs 6:10-8	\$44	p. 75		
*E6388	Legal Information for Women	(2)	Duncan	Wed 6:10-8	\$44		5	
	(Discussions and lectures on available legal information concerning marriages, separation, divorce, alimony, property sales and mortgages, wills and recent developments in law relating to women's rights. Consideration is also given to concepts of civil disobedience and the right to dissent.)							
*E6508	Role of Hearing Examiners and Presiding Officers	(2)	Baker		\$44 and \$8		1	
	materials fee							
	(Discussions and lectures focusing on the procedural responsibilities of hearing examiners. Attention will be given to: Prehearing conferences; rules and receipt of evidence; subpoena powers; impartiality; motions and objections. Variances among agencies in rules of practice and procedure and decision writing will be discussed. Course designed for hearing examiners and attorneys who appear before administrative bodies.)							
*E6336	Law and the Family	(2)	Wagman	Mon 6:10-8	\$44		11	
	(Survey of the eight areas of the law affecting the family unit, including marriage and divorce, rights of the family, children's rights, negligence, contracts, probate, mental health, and criminal law. Emphasis on legal rights and remedies, or how to get a lesser degree of injustice as one goes through life.)							

Management and Management Analysis

E6405B	Principles and Techniques of Management Analysis (Second Half)	(3)						1
	O'Brien and Holland	Thurs 6:10-8:40	\$66	p. 76				
E6409	Conduct of Management Surveys	(2)	Instructor To Be Announced	Thurs 6:10-8				2
	\$44 p. 77							
E6201	Successful Supervision	(3)	Koenig	Wed 6:10-8:40	\$66	p. 77		5
*E6418	Program Performance Evaluation and Control (3)	Hamza	Mon 6:10-8:40	\$66				1
	and \$2 materials fee							
	(Designed for Federal, state, and local government officials to further understand or to improve their effectiveness in evaluation and controlling agency programs. Includes cost/benefit analysis against goals and objectives; use of systems concepts to formulate objectives in terms of achievements within acceptable time frames; and mathematical techniques for data analysis. Cases illustrating application of regression and correlation analysis in forecasting and graphic methods of short-term forecasting. Employment of simulation models and methods. Evaluation of effect of social and economic forces, environment, and politics on agency programs. Techniques for displaying program analyses to senior management.)							
E6511	Quantitative Approaches to Management Problems	(3)	Moundalexis					11
	Tues 6:10-8:40	\$66	p. 78					
E6519	Work Standards and Work Measurement	(2)	Schneider	Tues 6:10-8	\$44	p. 78		9
E6550	Organizational Theory and Practice	(3)	Ward	Wed 6:10-8:40	\$66	p. 78		

Personnel Administration

E4114	Federal Personnel Procedure (2) \$44 p. 99 Section 01 Moriarty and Bottone Tues 6:10-8 Section 02 Starns Sat 9-12 (10 weeks)	1
E6430	Public Personnel Administration (3) Weithoner and Schulman Wed 6:10-8:40 \$66 p. 79	8
E6201	Successful Supervision (3) Koenig Wed 6:10-8:40 \$66 p. 77	5
*E6488	Labor Negotiations in Government—Problems and Practices of Arbitration for Government Supervisors (3) Instructor To Be Announced Thurs 6:10-8:40 \$66 (This course is designed for government supervisors and will provide a brief outline of the Executive Order and policies affecting labor-management relations in the public sector, including Mediation and Impass Resolution. Practice will be given in conducting and experiencing negotiations sessions.)	1
E6436	Management-Employee/Employee-Management Motivation (2) Draheim Tues 6:10-8 \$44 p. 80	1
E6474	Employee Benefits: Retirement Plans (2) Landay and Zisman Tues 6:10-8 \$44 p. 81	28

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
E6305	Systems Safety Management	(3)	Gordon	Tues	6:10-8:40	\$66	p. 81	2
E7446	Personnel Psychology	(3)	Brady	Thurs	6:10-8:40	\$66 and \$2 laboratory fee		7
E6444	p. 122							
E6444	Position Classification	(2)	McCarthy and Pitcher	Wed	6:10-8	\$44	p. 81	4
*E6447	Advanced Techniques of Job Evaluation	(2)	Suskin and Associates					14
	Tues 6:10-8 \$44							
	(This course explores advanced job evaluation techniques, including the factor-ranking/Benchmark method now being considered for the public service. Includes findings and recommendations of Legislative and Executive Branch groups on job evaluation and pay and testing of the factor-ranking/Benchmark methodology. Covers selection of job evaluation factors; development of guide charts, including quantitative techniques; and use of Benchmark position descriptions. Explores interrelationships with employment, employee development, labor relations, and other areas of personnel administration. Prerequisite: Satisfactory completion of E6444 Position Classification, or E6430 Public Personnel Administration, or experience in personnel administration.)							
E6512	Employment and Placement	(3)	Lorentzen and Associates	Mon	6:10-8:40	\$66	p. 82	26
E6518	Employee Training and Development	(3)	McCullough	Mon	6:10-8:40	\$66	p. 82	27
E7597	Counseling Techniques II	(3)	Cornsweet	Mon	6:10-8:40	\$66	p. 125	11

Procurement and Property Management

E4113	Federal Property Procedure	(2)	McElrov	Tues	6:10-8	\$44	p. 99	1
E4115	Federal Purchasing Procedure	(2)	McCloskey	Mon	6:10-8	\$44 and \$3 materials fee		1
E6364	Federal Contracting	(2)	Bauer, Smith and Welch	Wed	6:10-8	\$44 and \$5 materials fee		1
E6374	Research and Development Contracting	(2)	Burns	Tues	6:10-8	\$44	p. 84	11

Public Administration

E6341	American National Government	(3)	Frederic	Mon	6:10-8:40	\$66	p. 84	14
E6344	Introduction to Public Administration	(2)	Sims	Thurs	6:10-8	\$44	p. 84	6
*E6560	Dynamics of Intergovernmental Cooperation in the 1970's	(3)	Instructor To Be Announced	Mon	6-8:30	\$66		14
	(This course will cover key Federal programs, policies, and a brief history leading to current issues in intergovernmental cooperation. Revenue Sharing—It's promises and pitfalls. Guest speakers drawn from the Washington community.)							
*E6484	Seminar in Contemporary Political Problems	(3)	Johnson	Wed	6:10-8:40	\$66		7
	(An exploration, through readings and discussions, of contemporary political questions. Discussions will vary weekly from grassroot American controversies such as the future of power movements [the 1970's sophisticated method of maintaining segregation] to global issues such as the right for independence in African countries.)							
E6515	Congressional Procedure	(2)	Hall	Wed	6:10-8	\$44	p. 85	41
E6400	Administrative Operations for Congressional Assistants	(2)	Englund	Sat	9-12 (10 weeks)	\$44	p. 85	43
*E6390	School Finance Reform—Current Issues and Problems	(2)	Foster and Johns	Tues	6:10-8	\$44		6
	(The purpose of this course will be to examine various assumptions implicit in the development and reform of existing systems of public school finance. Principles of taxation and revenue distribution will provide the context for considering issues of current interest, such as equalization of resources. Changing intergovernmental roles in the financing of public education, debate of the equity and adequacy of the property tax for school support, concepts of accountability and school spending. Local vs. state control, fiscal problems confronting cities, and the bases and consequences of court challenges to existing systems of public school finance.)							
*E6464	Urban Analysis	(3)	Mierzwa	Mon	6:10-8:40	\$66 and \$1 materials fee	p. 86	8
E6445	Civil Rights—Problems and Solutions	(3)	Coates	Wed	6:10-8:40	\$66	p. 86	8
E6600	Readings in Public Administration	(3)	To Be Arranged			\$66	p. 87	

MATHEMATICS AND STATISTICS

Mathematics

E3101	Everyday Mathematics	(2)	Mouser	Wed	6:10-8	\$44	p. 88	30
E3008	Intermediate Algebra (non-credit)		Butler	Wed	6:10-8:40	\$66	p. 88	11
E3001B	Review of College Freshman Mathematics (Second Half) (non-credit)		Diamond	Mon	6:10-8	\$44	p. 89	2
E3002	Review of Calculus (non-credit)		Dougherty	Tues	6:10-8:40	\$66	p. 89	7
E3102	College Algebra	(4)	Gordon	Mon and Wed	6:10-8	\$88	p. 89	4
E3206A	Calculus (First Half)	(4)	Masalin	Mon and Wed	6:10-8	\$88	p. 90	4
E3206B	Calculus (Second Half)	(4)	Piait	Tues and Thurs	6:10-8	\$88	p. 90	11
E3415	Elementary Matrix Theory	(3)	Gambino	Mon	6:10-8:40	\$66	p. 90	4
E3500B	Topics in Higher Applied Mathematics (Second Half)	(3)	Trayers	Sat	9-11:30	\$66	p. 91	1
E3310B	Introduction to Probability Theory (Second Half)	(3)	Bexfield	Mon	6:10-8:40	\$66	p. 91	1
E3509B	Mathematics for Economists (Second Half)	(3)	Rojko	Thurs	6:10-8:40	\$66	p. 92	7
E3574	Advanced Topics in Linear Programming	(3)	Mylander	Wed	6:10-8:40	\$66	p. 93	6
E3534	Mathematical Methods in Operations Research II	(3)	Miller	Mon	6:10-8:40	\$66	p. 93	11

Statistics

E3006	Preparatory Mathematics for Introductory Statistics (non-credit)		Freie	Tues	6:10-8	\$44	p. 93	1
*E3412	Statistics in Experimental Research II	(3)	Huddleston	Thurs	6:10-8:40	\$66	p. 93	1
E3126A	Introductory Statistics (First Half)	(3)				\$66	p. 93	
	Section 01	Addison	Mon	6:10-8:40				1
	Section 02	Pope	Wed	6:10-8:40				1

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
E3126B	Introductory Statistics (Second Half)	(3)	Condie	Wed	6:10-8:40	\$66 p. 93		1
E3380B	Principles of Statistical Analysis (Second Half)	(3)	Kibler	Tues	6:10-8:40	\$66 p. 94		1
E3385B	Elements of Statistical Methods (Second Half)	(2)	McGuire	Tues	4:45-6:35	\$44 p. 94		12
E3400B	Mathematical Statistics (Second Half)	(3)	Bailar and Bailar	Mon	6:10-8:40	\$66 p. 94		7
E3404B	Intermediate Mathematical Statistics and Probability (Second Half)	(3)	Bailar	Tues	6:10-8:40	\$66 p. 95		6
E3145	Introduction to Survey Methods	(2)	Kafka	Tues	6:10-8	\$44 and \$2 materials fee p. 97		8
E3735B	Theory of Sample Surveys (Second Half)	(2)	Steinberg and Waksberg	Wed	6:10-8	\$44 p. 97		6
E9762	Electronic Computer Methods for Statisticians	(3)	Marcus	Thurs	6:10-8:40	\$66 p. 68		6

OFFICE TECHNIQUES AND OPERATIONS

Administrative Procedures

E4108	Administrative Procedure (3)	\$66 p. 98						
	Section 01 Wright	Tues 6:10-8:40						1
	Section 02 Nishimoto	Sat 9-1 (10 weeks)						1
E6201	Successful Supervision (3)	Koenig Wed 6:10-8:40	\$66 p. 77					5
E4206	Essentials of Good Office Management (3)	Wagner Wed 6:10-8:40	\$66 p. 98					1
E4112A	Federal Fiscal Procedure (First Half)	(2) Finotti Mon 6:10-8	\$44 p. 99					7
E4112B	Federal Fiscal Procedure (Second Half)	(2) Robbins Wed 6:10-8	\$44 p. 99					6
E4113	Federal Property Procedure (2)	McElroy Tues 6:10-8	\$44 p. 99					1
E4114	Federal Personnel Procedure (2)	\$44 p. 99						
	Section 01 Moriarty and Bottone	Tu-8 6:10-8						1
	Section 02 Starns	Sat 9-12 (10 weeks)						1
E4115	Federal Purchasing Procedure (2)	McCloskey Mon 6:10-8	\$44 and \$3 materials fee p. 99					1
E4116	Federal Budgetary Procedure: Formulation and Presentation (2)	\$44 p. 99						
	Section 01 Johnson	Tues 6:10-8						7
	Section 02 Hoadley	Wed 6:10-8						7
E4118	Federal Budgetary Procedure: Execution and Fund Control (2)	Bartolomeo Mon 6:10-8	\$44 p. 100					11
E4217	Advanced Records Management (3)	Brader Tues 6:10-8:40	\$66 p. 100					9
E4330	Government Letter Writing (2)	Noordhoff Tues 6:10-8	\$44 and \$2 materials fee p. 101					1

Typing

E4125	Beginning Typing (3)	\$66 p. 101						
	Section 01 Vaughan	Mon and Wed 5:45-7:15						1
	Section 02 Singletary	Tues and Thurs 5:45-7:15						1
E4126	Intermediate Typing (3)	Singletary Tues and Thurs 7:30-9	\$66 and \$10 laboratory fee p. 101					1

Shorthand

E4129	Gregg Shorthand I (3)	\$66 p. 102						
	Section 01 Vallieres	Mon and Thurs 6:10-7:30						35
	Section 02 Fritz	Mon and Thurs 6:10-7:30						7
	Section 03 Murphy	Sat 9-12						1
E4130	Gregg Shorthand II (3)	\$66 p. 102						
	Section 01 Gros	Mon and Thurs 6:10-7:30						7
	Section 02 Payton	Tues and Thurs 6:10-7:30						7
E4225	Gregg Shorthand III (60-80 Words)	(3) Boxley Mon and Thurs 6:10-7:30	\$66 p. 102					7
E4226	Gregg Shorthand IV (80-100 Words)	(3) Boardman Mon and Wed 6:10-7:30	\$66 p. 103					11

PHYSICAL SCIENCES

General

E5035	Exploration of the Universe—Study Discussion Group (non-credit)							6
	Schulman	Mon 6:10-8 (10 weeks)	\$30 p. 104					
E5175B	General Astronomy (Second Half)	(3) Fiala Tues 6:30-9	\$66 p. 104					36
E5596B	Introduction to Pharmacology (Second Half)	(3) Margolis Mon 6:10-8:40	\$66 p. 105					1
E5501	Biologically Active Chemicals—Chemistry of Drugs (3)	Benson Tues 6:10-8:40	\$66 p. 106					3

Chemistry and Physics

E5100B	General Chemistry (Second Half)	(3) Turner Tues 6:10-8:40	\$66 p. 106					11
E5320B	Basic Biochemistry (Second Half)	(2) Feinstein Tues 5:10-7	\$44 p. 107					40
E5406	Nutritional Biochemistry (2)	Adkins Mon 6:10-8	\$44 p. 107					1
*E5335	Principles of Geochemistry (3)	Johnson Thurs 5:30-8	\$66					34
	(Principles and theories on the abundance, relationships, and distribution of the elements in various rock and mineral species. Prerequisite: E5100 General Chemistry, or concurrent registration, or permission of instructor.)							
E5155B	Principles of Physics (Second Half)	(3) Smith Tues 6:10-8:40	\$66 p. 108					1
E5501	Biologically Active Chemicals—Chemistry of Drugs (3)	Benson Tues 6:10-8:40	\$66 p. 106					3

*New course

Geography and Geology

E5102	Introductory Geography	(2)	Instructor To Be Announced	Mon	6:10-8	\$44		6
	p. 108							
E5204	Historical Geology	(3)	Loomis	Wed	6:10-8:40	\$66	p. 109	1
E8408	Advanced Aerial Photographic Interpretation	(3)	Chisnell	Wed	6:10-8:40			7
	\$66 p. 148							

Meteorology

E5326	General Meteorology	(3)	Greene	Tues	4:45-7:15	\$66	p. 110	55
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Oceanography

*E5399	Fundamentals of Navigation	(2)	Brown and Ketts	Thurs	5:30-7:20	\$44		37
	(The earth and its coordinates. Characteristics of the marine chart, including projection, scale, coordinates, topographic and hydrographic features. Measurements on the marine chart and limitations of buoyage systems. The geometry of piloting; effects of refraction. Optical principles of the sextant; principles of the vernier. Observational errors and their correction. Introduction to compass adjustments. Tides and tidal currents. Line of position concepts for piloting, celestial, and radio navigation. Time and its use in navigation. Basic celestial navigation; use of the Nautical Almanac and sight reduction tables. Characteristics of radio waves and their use in navigation.)							
*E5433	Sonar Instrumentation	(3)	Barron	Tues	5:30-8	\$66		37
	(Designed to teach the fundamental experimental concepts in acoustics, vibrations, and wave propagation. Topics include: Dynamic instrumentation and measurement techniques; calibration of transducers; measurement of ambient noise; propagation loss; reverberation; source level; figure of merit in laboratory and field. Special techniques include laser interferometry and holography.)							
E5476	Applied Underwater Sound	(3)	Barron	Thurs	5:30-8	\$66	p. 112	37
E5584	Physical Properties of Sea Water	(2)	Paulus	Fri	5-7	\$44	p. 112	37
E5549	Chemical Oceanography	(2)	Andersen	Mon	5-7	\$44	p. 113	37
E5658	Geographical Oceanography	(3)	Weiss	Tues	5:30-8	\$66	p. 113	1
	(NOTE deletion of prerequisite: Professional knowledge of geology or oceanography not required.)							
*E5657	Polar Oceanography	(3)	Amstutz	Tues	5-7:30	\$66		37
	(The present status of geophysical knowledge pertinent to the description of polar regions and processes is reviewed. Major topics will include interaction between polar seas and world oceans, sea ice, and the utilization of remote sensors in polar research. Recent developments and changing interests, particularly in the Arctic, will be emphasized. The course is designed to familiarize researchers and laymen with the earth's latitude regions and to stimulate their appreciation for the complex problems associated with understanding and intelligently utilizing these regions.)							
E5480	Marine Photogrammetry	(3)	Pollio	Wed	5-7:30	\$66	p. 114	37
*E5706	Ocean Engineering	(3)	Pijanowski	Tues	5-7:30	\$66 and \$1 materials fee		37
	p. 114							
E5666B	Biological Oceanography (Second Half)	(2)	Houbrick	Wed	6:10-8	\$44	p. 115	7
*E5667	Ocean Law	(2)	Smith	Wed	6:10-8	\$44	p. 115	1

SOCIAL AND BEHAVIORAL SCIENCES

Economics

E7201A	Principles of Economics (First Half)	(3)	Duskin	Tues	6:10-8:40	\$66	p. 116	8
E7201B	Principles of Economics (Second Half)	(3)	Shapiro	Tues	6:10-8:40	\$66	p. 116	4
E7548B	Intermediate Economic Analysis (Second Half)	(3)	Edwards	Tues	6:10-8:40			5
	\$66 p. 117							
E3509B	Mathematics for Economists (Second Half)	(3)	Rojko	Thurs	6:10-8:40	\$66		7
	p. 92							
E7476	Public Finance and Fiscal Policy	(3)	Wagner	Thurs	6:10-8:40	\$66	p. 118	1
E7526	Introduction to International Economics	(3)	Singleton and Gray	Fri	6:10-8:40			1
	\$66 p. 119							
E8474	Engineering Economics	(3)	Crawford	Tues	6:10-8:40	\$66 and \$2 materials fee		5
	p. 134							
E7336	Agriculture's Role in Economic Growth and Development	(3)	West and Willett					5
	Tues 6:10-8:40 \$66 p. 119							
E7528	International Trade and Commercial Policy	(3)	Schwartz	Mon	6:10-8:40	\$66		7
	p. 120							
E7532B	International Marketing and National Export Expansion (Second Half)	(3)						15
	Trotter Thurs 6:10-8:40 \$66 p. 120							
*E7117	Investing in Securities	(2)	Picard	Wed	6:10-9 (10 weeks)	\$44		11
	(Fundamental principles of investing in securities, including classes of securities and bases for investment decisions. Tools of analysis for investors, such as understanding financial statements. Securities markets and how they operate.)							
E6474	Employee Benefits: Retirement Plans	(2)	Landay and Zisman	Tues	6:10-8			28
	\$44 p. 81							

Human Relations

E7210	General Psychology	(3)	de Haan	Wed	6:10-8:40	\$66	p. 122	1
E7235	Introductory Social Psychology	(3)	Footo	Mon	6:10-8:40	\$66	p. 122	11
E7446	Personnel Psychology	(3)	Brady	Thurs	6:10-8:40	\$66 and \$2 laboratory fee		7
	p. 122							
E7442	Problems in Living and Personality and Behavior Modifications	(3)	Cornsweet					11
	Wed 6:10-8:40 \$66 p. 123							
E7541	Improving Human Relations and Group Behavior	(2)	Marquardt	Mon	6:10-8			6
	\$44 and \$2 materials fee p. 123							
*E7602	Transactional Analysis	(3)	Instructor To Be Announced	Mon	6:10-8:40	\$66		1
	(Discussion, analysis, demonstrations, role play, and applications to work and life of "I'm OK, You're OK" by Thomas A. Harris, M.D.; "Games People Play" by Eric Berne, M.D.; and related readings.)							
E7600	Readings in Human Relations	(3)	Kraus	To Be Arranged		\$66	p. 124	

*New course

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
E7577	Basic Principles and Methods of Rehabilitation (2)		Cavanaugh	Tues	6:10-8			10
	\$44 p. 124							
E7303	Child and Adolescent Psychology (2)		Stammeyer	Tues	6:10-8	\$44 p. 124		48
*E7327	Psychology of the Mentally Retarded (2)		Mitra	Thurs	6:10-8	\$44 p. 124		1
E7710	Abnormal Psychology (3)		Kyriazis	Tues	6:10-8:40	\$66 p. 125		1
E7466	General Semantics—Seminar (2)		Eldridge	Wed	7:10-9	\$44 p. 125		57
E7597	Counseling Techniques II (3)		Cornsweet	Mon	6:10-8:40	\$66 p. 125		11
E7549	The Crime Problem (3)		Kramer	Sat	9-1 (10 weeks)	\$66 p. 126		1
E7115B	Introduction to Sociology (Second Half) (3)		Weinstein	Thurs	6:10-8:40	\$66		56
	p. 127							
E7640	Sociology of Health and Illness (3)		Kramer	Mon	6:10-8:40	\$66 p. 127		1
*E7566	Conflict and Conflict Resolution in Man, Society, and International Relations (3)		Dunne	Sat	9-11:30	\$66 p. 130		1
	(This course provides an opportunity to develop one's understanding of conflict resolution and to explore the relationships between various levels of conflict and conflict resolution. The details of the program (areas to be emphasized, format of class sessions, criteria for grades, etc.) are developed by the participants as a group.)							

International Relations

*E7019	Great Decisions—1973 (non-credit)		Holden	Thurs	6:10-8 (8 weeks)	\$22		1
	(Topics include: (1) The Sino-Soviet-American Triangle: Toward a New Balance of Power?; (2) The Mass Media and Foreign Policy: What Limits on the Public's Right to Know?; (3) Japan: Partner or Rival?; (4) White Rule in Black Africa: Which Side Are We On?; (5) The Common Market Expands: Can the U.S. Compete?; (6) Man on Earth: Can He Control His Environment?; (7) Canada, Latin America, and the U.S.: Are We Exploiting Our Neighbors?; (8) Egypt After the Soviet Withdrawal: Can "No-War/No-Peace" Continue in the Middle East?)							
E7526	Introduction to International Economics (3)		Singleton and Gray	Fri	6:10-8:40	\$66 p. 119		1
E7528	International Trade and Commercial Policy (3)		Schwartz	Mon	6:10-8:40	\$66 p. 120		7
E7538	World Population Trends and Problems (3)		Baum	Tues	6:10-8:40	\$66 p. 129		6
*E7566	Conflict and Conflict Resolution in Man, Society, and International Relations (3)		Dunne	Sat	9-11:30	\$66 p. 130		1
	(This course provides an opportunity to develop one's understanding of conflict and conflict resolution and to explore the relationships between various levels of conflict and conflict resolution. The details of the program (areas to be emphasized, format of class sessions, criteria for grades, etc.) are developed by the participants as a group.)							
E7499	China: Past and Present (3)		Ristaino	Wed	6:10-8:40	\$66 p. 130		30
E7020	World Politics—Study Discussion Group (non-credit)		Sweeney	Wed	6:10-8	\$44 p. 131		5

American History

E7251	American History Since 1865 (3)		Rasmussen	Wed	6:10-8:40	\$66 p. 131		1
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TECHNOLOGY

Engineering

E8092	Review of Engineering Fundamentals for P. E. Examination (non-credit)		Rixse	Wed	6:10-8:40	\$66 p. 132		1
E8093	Civil Engineering Review for P. E. Examination (non-credit)		O'Fallon	Mon	6:10-8:40	\$66 and \$3 materials fee p. 132		7
E8095	Electrical Engineering Review for P. E. Examination (non-credit)		Jessel, Gill, and Thomas	Wed	6:10-8:40	\$66 p. 132		21
E8311B	Naval Architecture and Marine Engineering (Second Half) (3)		Kerr	Wed	6:10-8:40	\$66 p. 134		7
E8730	Introduction to Systems Engineering (2)		Thompson	Mon	6:10-8	\$44 p. 134		1
E8474	Engineering Economics (3)		Crawford	Tues	6:10-8:40	\$66 and \$2 materials fee p. 134		5
E8416	Introduction to Thermodynamics (3)		Awl	Tues	6:10-8:40	\$66 p. 135		1
E8417	Introduction to Hydraulics (3)		Awl	Sat	9-11:30	\$66 p. 136		1
E8714	Heating, Ventilating, and Air Conditioning (3)		Hollander	Tues	6:10-8:40	\$66 p. 136		4
E8698	Traffic Planning and Operations (3)		Gillam	Wed	6:10-8:40	\$66 p. 137		11

Fine Arts

E8320	Pencil Sketching and Water Color Painting (2)		Cupoli	Mon	6:10-8:40	\$66 and \$5 laboratory fee p. 137		16
E8351	Oil Painting (2)		Cupoli	Wed	6:10-8:40	\$66 and \$5 laboratory fee p. 137		16
E8338	Life Sketching (2)		Cupoli	Thurs	6:10-8:40	\$66 and \$10 laboratory fee p. 137		16
*E8323	Portrait Painting (2)		McKenna	Mon	6:10-8:40	\$66 and \$5 laboratory fee p. 137		1
*E8374	Contemporary Painting (2)		Rudd	Wed	6:10-8:40	\$66 and \$10 laboratory fee p. 137		58
E8366	Anatomy of Creative Art (2)		Cohen	Thurs	6:10-8:40	\$66 and \$5 laboratory fee p. 137		1
E8357	Etching (2)		Sirica	Wed	6:10-8:40	\$66 and \$10 laboratory fee p. 138		59
E8371	Sculpture (2)		Rudd	Thurs	6:10-8:40	\$66 and \$10 laboratory fee p. 138		58
E8245	Pottery (2)				\$66 and \$25 laboratory fee p. 138			
	Section 01		Hinckley	Tues	6-8:30			25
	Section 02		Hinckley	Fri	8:30-11			25
*E8168	Jewelry Making (2)		Gordon	Wed	6:10-8:40	\$66 and \$35 laboratory fee (includes cost of silver) p. 138		60
*E8088	Gem Stone Workshop (non-credit)		Farringer	Mon	6:10-8	\$44		1
	(Practical course for mineral hobbyists and laymen who want to increase their knowledge of gem stones. The course will deal with diamonds and colored stones such as rubies, sapphires, topaz, tourmaline, amethyst, and amber, as well as imitations and synthetics.)							

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page	Bldg.
E8336	American Art	(3)	Murray	Thurs	6:10-8:40	\$66 p. 139		1
E8372	African Art and Culture	(3)	Hommel and Associates	Wed	6:10-8:40	\$66 p. 139		32
E8112	Small Domestic Buildings: Their Design and Construction or Restoration	(3)	Van Sweden	Wed	6:10-8:40	\$66 and \$2 laboratory fee p. 140		1
E8285	Landscape Use of Trees, Shrubs, Vines, and Flowers	(2)	Pledger	Thurs	6:10-8	\$44 p. 140		1
E8370	Music Appreciation	(3)	Shortridge	Wed	6:10-8:40	\$66 and \$5 laboratory fee p. 140		1
*E8378	Theater Art Seminar	(2)	Munroe	Mon	6:10-8	\$44 and \$40 laboratory fee (includes cost of theater tickets)		5
	(Studies in theatrical production involving literature, aesthetics, and mechanics. Contributions of the playwright, actor, director, and designer examined through lectures, visiting artists, class discussions, and attendance at theatrical performances. Involves attending 10 to 12 professional and semi-professional productions in the Washington area theaters.)							
E8373	Motion Picture Appreciation	(2)	Spehr	Tues	6:10-8	\$44 and \$10 laboratory fee p. 141		30
E8055	Introduction to Interior Design	(non-credit)	Meyer	Thurs	6:10-8	\$44 p. 141		1

Graphic Arts

E2188B	Graphic Arts in Federal Government	(Second Half)	(2)	Southree and Taylor	Wed	6:10-8	\$44 p. 44	1
E2179	Environmental Design	(2)	Granahan	Wed	6:10-8	\$44 p. 44		1
E2186	Creative Illustration	(2)	Auld	Tues	6:10-8	\$44 p. 44		14
E2311	Art, Layout, and Design for Reproduction	(2)	Robinson and Taylor	Tues	6:10-8	\$44 p. 45		2
E2185	Layout in Visual Communication	(2)	Jessup	Mon	6:10-8	\$44 p. 45		5
E2180	Creative Design	(2)	Baka	Tues	6:10-8	\$44 p. 45		1
E2182	Exhibit Design and Fabrication	(2)	Schleyer	Tues	6:10-8	\$44 p. 45		1
E2181	Production and Management of Graphics	(2)	Hopewell	Mon	6:10-8	\$44 p. 45		4
E2237	Printing, Layout, and Design	(2)	Murrow and Associates	Tues	6:10-8	\$44 p. 47		1

Photography and Lithography

E8070	Introduction to Photography	(non-credit)	\$44 and \$5 laboratory fee	p. 142				
	Section 01	Page	Mon	6:10-8				1
	Section 02	McCullough	Wed	6:10-8				1
	Section 03	McCullough	Thurs	6:10-8				1
	Section 04	Jones	Sat	10-11:50				1
E8192	Fundamentals of Photography I	(2)	Szeluga	Wed	6:10-8	\$44 p. 142		1
E8193	Practice of Photography I	(3)	\$66 and \$4 laboratory fee	p. 142				38
	Section 01	Fuller	Mon	6:30-9				1
	Section 02	Fune	Tues	6:10-8:40				1
E8195	Fundamentals of Photography II	(2)	Merritt	Mon	6:10-8	\$44 p. 142		1
E8196	Practice of Photography II	(3)	Fuller	Tues	6:30-9	\$66 and \$5 laboratory fee p. 142		38
E8199	Practice of Photography III	(3)	Fuller	Wed	6:30-9	\$66 and \$6 laboratory fee p. 142		38
*E8380	Portrait Photography Workshop	(3)	\$66 and \$10 laboratory fee	p. 143				1
	Section 01	Hughes	Wed	6:10-8:40				1
	Section 02	Purdy	Thurs	6:10-8:40				1
E8270A	Color Photography and Printing	(First Half)	(3)	Rodbell	Thurs	6:10-8:40		51
	\$66 and \$18 laboratory fee	p. 143						51
E8270B	Color Photography and Printing	(Second Half)	(3)	Rodbell	Tues	6:10-8:40		51
	\$66 and \$18 laboratory fee	p. 143						4
E8295	Mechanics and Kinetics of Photographic Process	(3)	Salerno	Tues	6:10-8:40	\$66 p. 143		1
E8197	Creative Photography through Composition II	(2)	Miller	Mon	6:10-8	\$44 and \$2 laboratory fee p. 144		1
E8198	Photojournalism	(2)	Forté and Warren	Mon	6:10-8	\$44 p. 144		1
E8011	Photographic Roundtable	(non-credit)	To Be Arranged	\$5 p. 144				1
E8165B	Copy Preparation: Pasteup and Photographic Workshop	(Second Half)	(3)	Born	Tues	6:10-8:40	\$66 and \$25 laboratory fee p. 145	19
E8170B	Survey of Lithography	(Second Half)	(3)	Reznikoff	Thurs	6:10-8:40	\$66 p. 145	39
E8171B	Offset Stripping and Negative Work	(Second Half)	(3)	Gervasio	Wed	6:10-8:40	\$66 and \$15 laboratory fee p. 145	19
E8174B	Offset Photography	(Second Half)	(3)	Rankin	Thurs	6:10-8:40	\$66 and \$10 laboratory fee p. 145	19

Photogrammetry

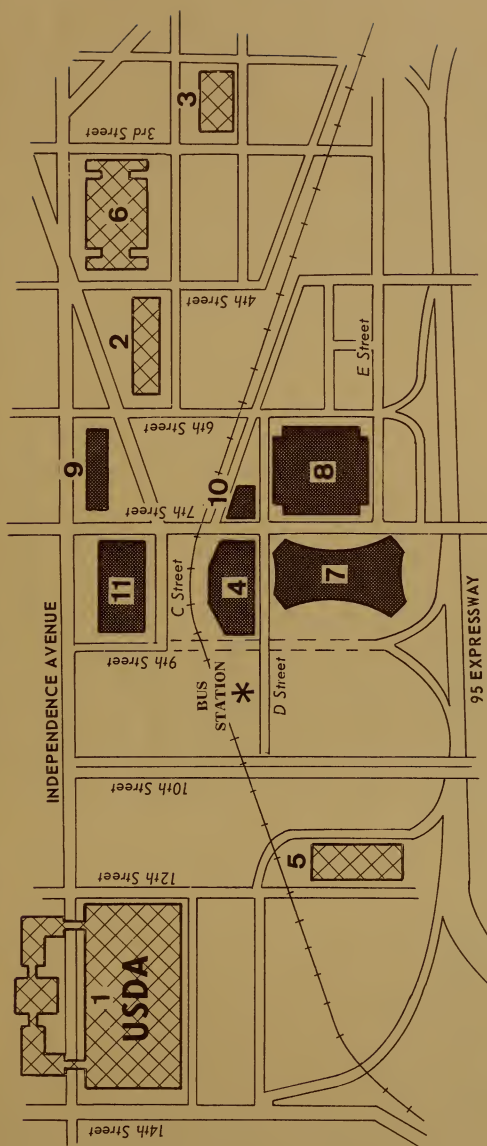
E8120	Introduction to Photogrammetry	(2)	McEwen	Mon	6:10-8	\$44 p. 147		61
E8252	Basic Photogrammetry II	(3)	McLaurin and Stephens	Wed	6:10-8:40	\$66 p. 148		22
E8408	Advanced Aerial Photographic Interpretation	(3)	Chisnell	Wed	6:10-8:40	\$66 p. 148		7
E8428	Advanced Remote Sensing	(3)	Simonett	Mon	6:10-8:40	\$66 and \$2 materials fee p. 149		17

Cartography

E8125	Cartography I	(3)	Foster	Thurs	6:10-8:40	\$66 p. 149		1
*E8228	Relief Shading	(3)	Toth	Wed	6:10-8:40	\$66 and \$8 laboratory fee	p. 149	9
E8240	Cartographic Techniques and Map Reproduction	(3)	Basile	Tues	6:10-8:40	\$66 and \$1 materials fee	p. 150	1
E8223	Map Projections and Grid Systems	(3)	Basile	Thurs	6:10-8:40	\$66 and \$2 materials fee	p. 150	1

*New course

SOUTHWEST Buildings - GRADUATE SCHOOL, USDA



- 1** Agriculture
14th and Independence Ave., S.W.
- 2** FOB 6 (Office of Education)
400 Maryland Avenue, S.W.
- 3** FOB 8 (Food and Drug)
2nd and C Streets, S.W.
- 4** General Services Administration (GSA)
Regional Office Building (ROB)
7th and D Streets, S.W.
- 5** Group Health Insurance
500 12th Street, S.W.
- 6** Health, Education and Welfare (HEW North)
4th and Independence Avenue, S.W.
- 7** Housing and Urban Development (HUD)
451 7th Street, S.W.
- 8** Nassif Building (DOT)
400 7th Street, S.W. (INSIDE PARKING)
- 9** National Aeronautics and Space Adm. (NASA)
600 Independence Avenue, S.W.
- 10** Reporters Building
300 7th Street, S.W.
- 11** Department of Transportation (FAA)
800 Independence Avenue, S.W. (INSIDE PARKING)

12	Agricultural Research Center Beltsville, Maryland	30	Library of Congress (LC) 2nd and Pennsylvania Ave., S.E. McPherson Bldg. 1425 K Street, N.W.	46	Trinity College Michigan Ave. & Franklin St., N.E.
13	Audubon Naturalist Hqtrs. 8960 Jones Mill Road Chevy Chase, Md.	31	Museum of African Art 318 A Street, N.E.	47	(Civil Aeronautics Board) 1825 Connecticut Ave., N.W.
14	Civil Service Commission (CSC) 19th and Virginia Ave., N.W. PARKING: 21st & C. Sts., N.W.	32	National Agricultural Library Route 1	48	St. Elizabeth's Hosp. 2700 Martin Luther King Jr. Ave., S.E.
15	Commerce	33	Beltsville, Maryland National Oceanographic Data Center Building 160	49	Veterans Administration Vermont Ave. and H Street, N.W.
16	14th and Constitution Ave., N.W. Cupoli Studio 930 F Street, N.W.	34	2nd and M Streets, S.E. 529 14th Street, N.W.	50	Veterans Administration Hospital 50 Irving Street, N.W.
17	Earth Satellite Corp. 1771 N Street, N.W.	35	Naval Observatory 34th and Massachusetts Ave., N.W.	51	Walter Reed Army Medical Center (Institute of Research) AFIP Building 14th St. and Alaska Ave., N.W.
18	Executive Office Building Annex 17th and F Streets, N.W.	36	Naval Oceanographic Office (FOB 4) Suitland, Maryland	52	Washington Science Center 11800 Georgetown Road Rockville, Maryland
19	Federal Center Building (FCB) Prince Georges Plaza Hyattsville, Md.	37	Navy Yard, Building 200 9th and M Streets, S.E.	53	National Library of Medicine Bethesda, Maryland
20	Federal Reserve 20th and Constitution Ave., N.W. PARKING: 21st & C Sts., N.W.	38	Nicholas Orem Junior High School 5920 33rd Avenue Hyattsville, Maryland	54	Federal Bar Building 1815 H Street, N.W.
21	General Accounting Office (GAO) 5th and G Streets, N.W.	39	Plant Industry Station (PIS) Beltsville, Maryland	55	Census Bureau (FAB 4) Suitland, Md.
22	Geological Survey 1109 North Highland Street Clarendon, Va.	40	Rayburn House Office Building First and Independence Ave., S.W.	56	Thomas Circle Bldg. Civil Service Comm. 1121 Vermont Avenue, N.W.
23	Gramax Building 8060 13th Street Silver Spring, Md.	41	Nat. Naval Medical Center Wisconsin Ave. Bethesda, Md.	57	Eldridge Home 3232 Volta Place, N.W.
24	Health, Education and Welfare (HEW South) 330 C Street, S.W.	42	Senate Office Building First and Constitution Avenue, N.E.	58	Rudd Studio Highland Apartments 1914 Connecticut Avenue, N.W.
25	Hinckley Galleries 1252 Wisconsin Avenue, N.W.	43	Smithsonian Institution Museum of Natural History 10th and Constitution Ave., N.W. PARKING: on Mall	59	Sirica Studio 514 10th Street, N.W.
26	Interior 18th and C Streets, N.W.	44	Treasury Madison and Pennsylvania Ave., N.W. PARKING: on Ellipse	60	Gordon Home—2800 block of Davenport Street, N.W.
27	Internal Revenue 12th and Constitution Ave., N.W.	45		61	McLean Professional Building 1340 Chain Bridge Road McLean, Virginia
28	Labor 14th and Constitution Avenue, N.W.				
29	Lafayette Building 811 Vermont Avenue, N.W.				

PARKING: Spaces around Federal buildings are generally available for student parking **after normal working hours**. Be sure not to block the exit of officials working late!

BUSINESS OFFICE
Graduate School
U. S. DEPARTMENT OF AGRICULTURE
Washington, D. C. 20250

Deadline for Registration
by Mail December 29, 1972

REGISTRATION FORM

(1-2) R 1	SOCIAL SECURITY NO. (3-11)	LAST NAME (12-26)	FIRST NAME (27-37)	INITIAL (38)
<div style="display: flex; justify-content: space-between;"><div style="width: 15%;">CIRCLE ONE 1. MR. (39) 2. MRS. 3. MISS</div><div style="width: 30%;">FORMER LAST NAME</div><div style="width: 15%;">DATE OF BIRTH (40-45) MO. DAY YR.</div><div style="width: 15%;">HOME PHONE (46-55)</div><div style="width: 25%;">OFFICE PHONE (56-65)</div></div>				
DEPT/ORGANIZATION/ORGANIZATIONAL UNIT/FIRM				HAVE YOU PREVIOUSLY ENROLLED IN USDA GRADUATE SCHOOL? (66) 1 <input type="checkbox"/> YES 2 <input type="checkbox"/> NO
BUSINESS MAILING ADDRESS			POSITION	CIVIL SER. (67-70) CLASS GRADE
(1-2) R 2	HOME MAILING ADDRESS (16-35)		ADDITIONAL ADDRESS INFORMATION (36-54)	
CITY (55-69)		STATE (70-71)	ZIP CODE (72-76)	
CIRCLE HIGHEST GRADE COMPLETED (77-78) 8 9 10 11 12 13 14 15 16 17 18 19 20				
(1-2) R 3	COLLEGE OR UNIVERSITY	MAJOR	DATES ATTENDED (FROM-TO)	DEGREE YEAR OFFICE USE (79)

REASON FOR ENROLLMENT (CHECK ONE MOST IMPORTANT) (80)

1 ☐ To improve performance in present position.

2 ☐ To prepare for advancement to a better position.

3 ☐ For general information and cultural reasons.

4 ☐ To qualify for certified statement of accomplishment.

5 ☐ For review in subject matter.

6 ☐ To secure credit to apply towards B.A. or B.S.

7 ☐ To secure credit to apply towards M.A. or M. S.

8 ☐ To secure credit to apply towards a doctorate.

FIRST COURSE					FOR OFFICE USE ONLY				
(1-2) B 1	COURSE NO. (18-25)	SECTION	CHECK ONE (26) 1 <input type="checkbox"/> CREDIT 2 <input type="checkbox"/> AUDIT	NO. OF CREDIT HRS. (CIRCLE ONE) 0 1 2 3 4 5	START DATE (27-32) MO. DAY YR.	CIRCLE PAY CODE (33) 0 1 2 3 4 5 6 7 8 9			
COURSE TITLE					TUITION (34-38)	LAB FEE (39-42)	SERVICE CHG. (43-46)	LATE FEE (47-50)	
VETERANS USING GI BILL (CHECK ONE) (51) 1 <input type="checkbox"/> I HAVE VA CERTIFICATE FOR THIS COURSE 2 <input type="checkbox"/> I HAVE APPLIED FOR VA CERTIFICATE FOR THIS COURSE					TOTAL FEE (52-56)	CASH COLLECTED (57-61)	BALANCE DUE (62-66)	INITIAL	
SECOND COURSE									
(1-2) B 2	COURSE NO. (18-25)	SECTION	CHECK ONE (26) 1 <input type="checkbox"/> CREDIT 2 <input type="checkbox"/> AUDIT	NO. OF CREDIT HRS. (CIRCLE ONE) 0 1 2 3 4 5	START DATE (27-32) MO. DAY YR.	CIRCLE PAY CODE (33) 0 1 2 3 4 5 6 7 8 9			
COURSE TITLE					TUITION (34-38)	LAB FEE (39-42)	SERVICE CHG. (43-46)	LATE FEE (47-50)	
VETERANS USING GI BILL (CHECK ONE) (51) 1 <input type="checkbox"/> I HAVE VA CERTIFICATE FOR THIS COURSE 2 <input type="checkbox"/> I HAVE APPLIED FOR VA CERTIFICATE FOR THIS COURSE					TOTAL FEE (52-56)	CASH COLLECTED (57-61)	BALANCE DUE (62-66)	INITIAL	
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